

Climatological Data for November, 1909.
DISTRICT No. 9, COLORADO VALLEY,
FREDERICK H. BRANDENBURG, District Editor.

GENERAL SUMMARY.

The weather conditions of the northern half of the district during November differed considerably from those that prevailed in the southern portions. In the north there was a remarkable excess of cloudiness, with heavy precipitation, and generally high temperatures, especially during the night. In the south, on the contrary, the skies were unusually clear, the precipitation was light, and the mean temperatures were nearly normal, while the nights were cooler than usual. Killing frost occurred in southern Arizona on the 16th, or about two weeks earlier than the average date.

TEMPERATURE.

The mean of the 137 stations reporting was 44.9° , or 0.4° above the normal. There was an unusual excess in the northern part of the district, in western Wyoming, and northwestern Colorado. Toward the south, the excess was less, and over much of the Gila Valley there was a considerable deficiency. By subdivisions the means and departures were: Western Wyoming, 29.3° , $+2.0^{\circ}$; western Colorado, 33.6° , $+0.9^{\circ}$; eastern Utah, 38.3° , $+0.4^{\circ}$; western New Mexico, 44.9° , $+0.5^{\circ}$; Arizona, 53.2° , $+0.1^{\circ}$. The first week was unusually warm in all parts of the district, with the highest temperatures from the 3d to the 6th. The highest reading was 98° at Gila-bend, Ariz. From the 10th to the 15th the weather was generally cloudy and the day temperatures were lower, but low night temperatures did not occur until the 16th, when decidedly low readings were observed in all localities. The lowest noted was 16° below zero at Flagstaff(2). The nights continued cold until the 19th, after which generally warm weather continued until the 25th. From the 26th to the close of the month the weather was cool, but temperatures did not fall so low as during the preceding cold spell.

PRECIPITATION.

The average of the 174 stations reporting was 1.07 inches, or 0.06 inch below the normal. The distribution was not uniform. In Colorado, Wyoming, and Utah there was a general and pronounced excess, the heaviest falls occurring in southern Utah and southwestern Colorado. In New Mexico and Arizona there was a considerable deficiency, the month being practically rainless in the Mimbres and upper Gila valleys, in southwestern New Mexico. By watersheds the means and departures were: Green, 1.61 inches, $+0.77$ inch; Grand, 1.32 inches, $+0.35$ inch; San Juan, 1.96 inches, $+0.10$ inch; Little Colorado, 0.72 inch, -0.42 inch; Gila, 0.66 inch, -0.36 inch; lower Colorado, 1.30 inch, $+0.21$ inch. The heaviest local

precipitation was 5.09 inches at Strawberry, Utah. Five stations in southwestern New Mexico reported no rainfall, and several others but a trace. There were two general periods of precipitation. The first extended from the 10th to 15th, and was confined mainly to the northern half of the district. The second, from the 26th to 30th, covered nearly all the Colorado Valley. On the 21st moderately heavy rain or snow occurred in the western portions of Colorado and Wyoming. The snowfall in the mountain districts was fairly heavy, and a considerable depth remained on the ground at the close of the month.

RIVERS.

As the precipitation occurred largely in the form of snow, it had but little effect on the run-off; the rivers fluctuated slightly during the month. In many of the Arizona streams there was no flow; in others, especially those in the northern part of the Territory, there was a moderate flow near the middle of the month. The water supply was considered above the average, except in southern Arizona and New Mexico, where it was slightly deficient.

MISCELLANEOUS.

The only noteworthy feature was the unusual cloudiness in the northern portions of the district. At Grand Junction there was but 50 per cent of the possible sunshine, or 21 per cent less than the normal. In Arizona the sunshine was somewhat above the usually high average.

The Coconino Forest Experiment Station at Flagstaff, Ariz.—The meteorological work of the Coconino Forest Experiment Station has been confined principally to the observation of temperature, humidity, wind direction and movement, precipitation, and evaporation at 3 stations on the experimental grounds, 1 in the forest, and 2 in an open park at different distances from the forest. These stations are maintained for the purpose of studying the differences in temperature and moisture between the open country and the forests, together with the air drainage into the parks, and a summary of the observations thus far made will be embodied in a report to be prepared at an early date by the director of the station.

A few observations of temperature, wind movement, and evaporation have been made at other points where experiments in planting are being conducted, but owing to unavoidable delay in the receipt of instruments the study of temperature and moisture conditions on those areas will not be taken up systematically until next spring, when it is intended to make a careful study of the physical factors on 3 planting and sowing areas representing 3 typical conditions on the forest.

TABLE 1.—*Climatological data for November, 1909. District No. 9, Colorado Valley.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.								Precipitation, in inches.								Sky.	Prevailing wind direction.	Observers.					
				Mean.	Departure from the normal.		Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.		Greatest in 24 hours.	Total snowfall unmeasured.	Number of rainy days, .01 inch or more.										
					Date.	Highest.							Departure from the normal.	Greatest in 24 hours.													
<i>Wyoming.</i>																											
Daniel.	Uinta.	6,740	10	29.0	+ 2.0	63	3	- 4	17	45	1.00	+ 0.53	0.50	5.0	3	13	9	8	nw.	J. M. Van Dervort.							
Dixon.	Carbon.			29.4 ^a		61 ^a	3†	- 4 ^a	13	48 ^a	0.42 ^a		0.39 ^a	3.0 ^a	2 ^a	15 ^a	7 ^a	7 ^a	w.	Carey O. Morgan.							
Eden.	Sweetwater.	6,577																									
Fontenelle.	Uinta.	6,400	3																								
Green River.	Sweetwater.	6,083	4																								
Kendall.	Fremont.	7,630																									
Pinedale.	do.	7,167	3	28.6		56	3†	- 3	17	41	0.83		0.25	6.5	6	12	8	10	nw.	C. W. Holden.							
Willow Creek Cabin.	do.	7,500	1	30.2 ^b		57 ^b	4	- 5 ^b	18	33 ^b	2.58 ^b		1.20 ^b	30.5 ^b	7 ^b	6	1	14	sw.	Geo. H. Maxon.							
<i>Colorado.</i>																											
Ashcroft.	Pitkin.	9,453	8	29.4		59	6	- 6	16	39	1.71	- 1.06	0.38	24.0	13					nw.	Art. Doyle.						
Breckenridge.	Summit.	9,536	19	27.8	+ 1.7	64	3	- 4	13	47	0.71	- 1.06	0.25	9.0	4	3	16	11	nw.	Forest Service.							
Cascade.	San Juan.	3,900	3																e.	John L. Allen.							
Chromo.	Archuleta.	7,500	3	33.4		70	3	- 8	16	56	1.23		0.30	16.5	8	20	7	3	sw.	Bessie McDonough.							
Cochetopa.	Saguache.	9,088																	w.	A. A. Wood.							
Collbran.	Mesa.	6,000	16	36.8		65	6	6	16	38	1.97	+ 1.12	0.28	21.5	7	12	7	11	sw.	Jas. H. Caron.							
Columbine.	Routt.	8,768																	w.	Geo. W. Wade.							
Cumbine Ranch.	De'ta.	6,925																	s.	U. S. Weather Bureau.							
Corona.	Grand.	11,660	2	22.2		44	3	- 5	16	20	1.96		1.00	20.4	6	12	5	13	w.	C. W. Roe.							
Crawford (near).	Montrose.	6,600	37.2			63	6†	5	16	34	0.58		0.10	11.0	6	16	5	9	sw.	Charles L. Rose.							
Crested Butte.	Gunnison.	8,867																	e.	C. M. Paine.							
De Beque.	Mesa.	4,935																	w.	E. M. Getts.							
Delta.	Delta.	4,965	18	36.2	- 0.5	85	1	13	16†	67	1.01	+ 0.50	0.30	2.0	8	14	9	7	sw.	Dan McArthur.							
Dillon.	Summit.	8,800																	w.	Mrs. J. G. Thompson.							
Dolores.	Dolores.	6,500		34.8		65	15	12	5†	50	0.84		0.29	13.3	4	17	8	5	sw.	San Juan P. & W. Co.							
Dunkley.	Routt.	7,430	5																w.	Lawrence Nolan.							
Durango.	La Plata.	6,534	16	36.3	- 0.4	68	4	5	16	40	1.81	+ 0.64	0.70	15.3	7	13	11	5	sw.	Bessie McDonough.							
Eagle.	Eagle.	6,598	4	33.9		64	2†	0	18	44	1.84	+ 1.03	0.41	5.5	5	14	8	3	w.	A. A. Wood.							
Eureka.	San Juan.	10,000	2																s.	Jas. H. Caron.							
Fruita.	Mesa.	4,510	10	38.6	+ 1.5	68	6	16	18	46	0.92	+ 0.41	0.36	T.	5	13	4	13	sw.	Geo. R. Simmons, jr.							
Gladstone.	Garfield.	10,400	3																w.	Geo. W. Dunkley.							
Glennwood Springs (near).	Mesa.	5,823	11																s.	U. S. Weather Bureau.							
Grand Junction.	Grand.	4,608	18	40.8	+ 0.9	68	9	20	16	37	1.05	+ 0.42	0.46	1.1	5	11	5	14	sw.	Mrs. Belle Kaufman.							
Grand Lake.	Garfield.	8,089	17	37.1	- 0.2	70	2†	0	16	49	1.84	+ 1.03	0.61	5.2	8	9	5	16	w.	David Evans.							
Gunnison.	Routt.	7,670	16	28.6	+ 1.9	60	7	- 3	17	53	0.40	- 0.25	0.15	4.4	6	14	11	5	sw.	Clarence Adams.							
Hayden.	La Plata.	6,337	24.0			59	11	- 10	15	39	1.72		0.68	23.0	7	19	6	5	w.	C. W. Harkness.							
Hesperus.	Montrose.	8,700																	s.	John S. Spear.							
Horsefly.	Ignacio.	6,425																	w.	Lawrence J. Finch.							
Ironton.	La Plata.	10,000																	s.	Elizabeth Schalles.							
Kremmling (near).	Ouray.																		w.	P. H. Foley.							
Lake City.	Grand.	7,337	1	31.0		61	4†	- 3	17	50	1.04		0.51	8.5	3	11	11	8	sw.	H. A. Howe.							
Lay.	Hinsdale.	9,686	4	32.8		63	2†	- 9	16	49	0.95		0.41	17.0	5	14	10	6	s.	W. H. Ogle.							
Lujane.	Routt.	6,190	15	32.7	+ 2.3	67	5	- 9	16	52	1.79	+ 1.08	0.66	14.5	7	8	5	17	sw.	A. G. Wallihan.							
Mancos.	Montrose.	6,620	3	39.0		67	5†	6	16	36	0.80		0.28	8.0	8	12	12	6	se.	T. T. Richards.							
Marble.	Montezuma.	6,980	10	37.1	- 0.1	67	3†	- 1	16	44	1.53	+ 0.21	0.43	13.8	7	14	8	8	w.	B. M. Krumanitzky.							
Marshall Pass.	Gunnison.	10,846	6			65	3	- 4	16	44	1.97		0.76	24.0	11	12	9	9	w.	Homer Harrington.							
Meeker.	Rio Blanco.	6,182	17	33.9 ^c	+ 1.2	65 ^c	4†	- 10 ^c	17	48 ^c	2.53	+ 1.63	1.31	23.3	7	9	12	6	sw.	William D. Lillard.							
Montross (near).	Montrose.	5,811	20	37.8	+ 2.1	72	6	7	16	48	0.73	+ 0.17	0.21	6.4	9	9	13	7	sw.	T. Baker.							
Nast.	Pitkin.	7,953	30.1			59	5	0	17	43	1.16		0.46	12.3	7	15	5	10	w.	R. Butterfield.							
Pagoda.	Routt.	6,500	18	32.7	- 0.4	68	4	- 8	16	48	1.77	+ 0.83	0.65	18.0	5	18	2	10	sw.	Arthur Hanthorn.							
Pagoosa Springs.	Archuleta.	7,108	2	31.0		70	3	- 12	16†	56	1.66		0.46	21.0	8	15	5	10	w.	Shaw Brothers.							
Paonia.	Delta.	5,694	8	40.8		70	6	12	16	39	1.17	+ 0.49	0.38	7.0	7	10	11	9	sw.	E. T. Walker.							
Parshall.	Grand.																		s.	J. M. Underwood.							
Pitkin.	Gunnison.	9,500																	w.	F. A. Walker.							
Rangely.	Rio Blanco.	5,060	10	35.6	+ 2.0	66	3	4	15	50	1.36	+ 0.88	0.35	13.2	6	4	11	15	sw.	Mrs. Maggie Cammann.							
Rico.	Eagle.	5,695	14																w.	Mrs. C. P. Hill.							
River Portal.	Dolores.	8,824	8																s.	Dorothea Greiner.							
Sapinero.	Garfield.	6,570	3	35.4		62	2†	5	15	36	1.23		0.23	8.6	9	15	4	11	sw.	Clinton B. Smith.							
Silt.	Gunnison.	8,125	9	31.3		60	3	- 2	16	40	1.90		0.61	16.7	9	15	6	9	w.	J. Dill.							
Silverton (1).	Garfield.	5,441	13	37.2	- 0.2	78	1	- 4	16	52	0.70	- 0.02	0.50	8.0	6	18	7	7	sw.	W. F. Irving.							
Silverton (2).	San Juan.	9,288	5																s.	V. E. Kerr.							
Spruce Lodge.	Grand.	9,400	3	26.4		62	3	- 13	16	47	2.46		0.60	35.5	10	11	9	10	sw.	San Juan P. & W. Co.							
Steamboat Springs.	Routt.	6,633	32.4			72	3†	- 7	17	57	2.18		0.84	12.5	8	19	2	9	sw.	H. J. Wills.							
Tacoma.	La Plata.	7,300	3	38.8		68	3†	0	15	39	3.44		0.93	20.5	10	15	10	10	n.	M. Elliot Houston.							
Terminal Dam.	do.	8,300	3																s.	San Juan P. & W. Co.							
Montrose.	Montrose.	8,400																	w.	Do.							
Whitepine.	Gunnison.	9,500	8	27.4		63	3	- 9	16	35	1.79		0.45	28.0	7	11	10	13	sw.	Martin Esser.							
Yampa.	Routt.	8,000																	w.	C. E. Macy.							
<i>Utah.</i>																					Percy A. Hughes.						
Aneth.	San Juan.	4,800	8																s.	Maude A. Palmer.							
Baker.	do.	7,560																	w.	E. H. Wolf.							
Basin.	Grand.	9,500																	s.	James Jeffs.							
Castle Dale.	Emery.	5,500	10	33.8 ^b		64 ^b	3	0	16†	40	2.28		0.83	0.0	4	12	18	0	sw.	H. J. Cooper.							
Dragon.	Uinta.		1																s.	U. S. Forest Service.							
Dyer Mountain.	Elkhorn.	10,000																	w.	Do.							
Elkhorn.	Emery.	6,260	9	44.3		75	3†	5	15	65	0.04		0.04	0.0	1	4	3	23	sw.	H. C. Wickman.							
Escalante.	Garfield.	5,700	9	38.8		68	4	5	17	43	1.40		0.95		3	15	0	15	w.	Geo. H. Barney.</							

TABLE 1.—Climatological data for November, 1909. District No. 9—Continued.

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.				Precipitation, in inches.				Sky.	Prevailing wind direction.	Observers.					
				Mean.	Departure from the normal.	Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.	Greatest in 24 hours.	Total snowfall unmeted.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
<i>Utah—Cont'd.</i>																			
Teasdale.....	Wayne.....	7,000	1																
Theodore.....	Wasatch.....	5,507	4	33.8	+ 0.4	61	3	4	17†	42	1.00		0.48	4.3	8	8	13	9	
Tropic.....	Gartfield.....	7,000	12	37.4	+ 0.4	70	31	— 6	18	50	1.79	+ 0.87	1.13	2.2	4	14	6	10	n.w.
Vernal.....	Uinta.....	5,350	14	35.4	+ 1.0	58	6	15	18	31	1.10	+ 0.26	0.50	4.0	6	17	6	7	
Wellington.....	Carbon.....	5,540	10	28.8		64	2	— 7	17	50	1.10		0.60	6.0	0				
<i>New Mexico.</i>																			
Blackrock.....	McKinley.....	— 2	42.0			75	1	9	16	51	0.38		0.19	1.8	4	19	5	6	w.
Bloomfield.....	San Juan.....	5,500	13	39.8	+ 0.7	74	6	5	17	57	0.36	— 0.17	0.25	2.0	4	16	9	5	sw.
Cambray.....	Luna.....	4,215	11										T.	0.0	0	24	5	1	w.
Cliff.....	Grant.....	4,470	11	46.6	— 1.9	79	6	19	17	44	0.20		0.20	0.0	1				
Columbus.....	Luna.....	4,054											T.	0.0	0	21	2	7	w.
Doming.....	do.....	4,333	33	52.0		83	8	20	28†	46	0.00	— 0.56	0.00	0.0	0	30	0	0	
Dulce.....	Rio Arriba.....	6,767	3										T.	0.0	0	0			
Fort Bayard.....	Grant.....	6,152	35	48.4 ^d	+ 2.0	75 ^d	4†	19	28	41 ^d	0.07	— 0.61	0.07	0.5	1	26	4	0	w.
Fort Wingate.....	McKinley.....	6,997	46	41.6	+ 1.1	71	4	12	16	43	0.13	— 0.66	0.05	1.3	4	11	11	8	sw.
Frisco.....	Socorro.....	5,800	3																
Fruitland.....	San Juan.....	4,800	17	40.2	+ 1.1	73	6	8	18	53	0.08	— 0.26	0.05	0.5	1	17	5	3	n.w.
Gage.....	Luna.....	4,486	3	51.4		80	5†	19	16	42	0.00	— 0.39	0.00	0.0	0	24	0	6	w.
Hachita.....	Grant.....	4,504														16	10	4	sw.
Hermanas.....	Luna.....	4,451																	
Lordsburg.....	Grant.....	4,245	10	51.2	+ 0.2	84	5	20	16	49	0.00	— 0.52	0.00	0.0	0	14	13	3	sw.
Luna (near).....	Socorro.....	7,300	5	37.0		68	4†	4	17	54	0.30		0.20	2.0	2	15	14	1	w.
Manuelito.....	McKinley.....	6,252	5	43.8 ^a		76	23	24 ^a	1†	48 ^a	0.12		0.12	1.2	2				
Mimbres.....	Grant.....	5,007	3																
Pratt.....	do.....	4,415																	
Redrock.....	do.....	4,150	5																
Rodeo.....	do.....	4,113	1																
Rosa.....	Rio Arriba.....	6,000	5																
<i>Arizona.</i>																			
Allaire's Ranch.....	Cochise.....	4,184	13																
Arizona Canal Dam.....	Maricopa.....	1,373		61.0	— 1.8	94	3	38	13†	38	0.52	— 0.18	0.52	0.0	0	13	11	6	e.
Aztec.....	Yuma.....	492	9	57.6	— 6.0	94	4	31	17†	54	0.79	— 0.13	0.79	0.0	0	23	0	7	w.
Benson.....	Cochise.....	3,523	26	54.4	— 1.0	87	3†	23	16	53	0.35	+ 0.02	0.20	0.0	2	13	1	16	
Bliss.....	do.....	5,500	19	53.6	+ 1.3	78	6	29	28†	32	0.23	— 0.47	0.23	0.0	1	25	5	0	e.
Bonita.....	Graham.....	4,916	30																
Bowie.....	Cochise.....	3,756	9	54.8	+ 2.2	88	4	27	16†	44	0.60	— 0.04	0.40	0.0	2	9	0	21	w.
Buckeye.....	Maricopa.....	980	17	56.0	— 1.7	94	3†	24	17	57	0.67	— 0.10	0.65	0.0	0	23	5	2	ne.
Casa Grande.....	Pinal.....	1,396	28																
Casa Grande Ruins.....	do.....	1,422	1	55.0		95	3	28	16	56	0.52		0.41	0.0	2	23	4	3	sw.
Cavecreek.....	Maricopa.....	1,520	2	57.4		92	3	23	15	51	0.29		0.29	0.0	1	25	3	2	sw.
Chin Lee.....	Apache.....	6,090	1	41.2		75	6	8	16†	57	0.47		0.23	5.1	5	18	1	11	sw.
Chiarlosen Mill.....	Graham.....	8,000	4																
Clifton.....	do.....	3,584	17	55.2		81	3†	33	14†	36	0.02	— 0.58	0.02	0.0	1	19	8	3	sw.
Cline.....	Gila.....	2,300	8	54.2	— 0.1	85	3	26	17	52	0.64	— 1.08	0.48	0.0	3	15	12	3	sw.
Cochise.....	Cochise.....	4,219	11	55.8	+ 3.8	89	3†	30	12†	49	0.42	— 0.38	0.30	0.0	2	18	10	2	sw.
Columbia.....	Yavapai.....	1,900	9	63.0	+ 2.4	93	2†	37	15	41	0.89	— 0.61	0.75	0.0	3	21	4	5	se.
Congress.....	do.....	3,688	13	57.0	— 2.5	85	3	35	27	30	1.42	— 0.35	1.22	0.0	3	20	3	7	sw.
Dos Cabezos.....	Cochise.....	5,250	1	51.5		79	3	21	16	52	0.26		0.26	0.0	1	23	7	0	e.
Douglas.....	do.....	3,930	6	53.6		88	3	20	30	56	0.02		0.02	0.0	1	26	4	0	sw.
Dudleyville.....	Pinal.....	2,204	18																
Flagstaff (1).....	Coconino.....	6,907	17	35.1	+ 0.5	67	4	4	17	46	1.51	+ 0.11	0.87	10.9	5	16	3	6	sw.
Flagstaff (2).....	do.....	7,453	4	34.3		65	3	— 4	16	49	1.53		0.91	10.2	3	21	5	4	sw.
Flagstaff (3).....	do.....	7,500	1	34.1		68	4	— 16	16	55	1.62		0.91	14.8	3	17	6	7	sw.
Florence.....	Pinal.....	1,504	9	57.7	+ 0.9	90	3	32	16	48	0.50	— 0.11	0.26	0.0	2	21	6	3	sw.
Fort Apache.....	Navajo.....	5,200	30	47.0	+ 2.2	91	2	14	17	65	0.84	— 0.27	0.70	0.0	3	21	6	3	w.
Fort Huachuca.....	Cochise.....	5,100	23	56.8	+ 3.8	83	9	30	16	35	0.50	— 0.49	0.50	0.0	1	29	0	1	s.
Fort Mohave.....	Mohave.....	604	20	60.6	+ 0.2	90	1†	33	14	48	0.20	— 0.28	0.18	0.0	1	21	8	1	
Gilabend.....	Maricopa.....	737	18	60.8	+ 2.0	98	3	29	27	50	0.42	— 0.04	0.42	0.0	1	25	2	3	n.w.
Globe.....	Gila.....	3,525	8	54.6		88	5	30	16	44	0.88		0.63	0.0	3	10	20	0	sw.
Grand Canyon (1).....	Coconino.....	6,366	6	35.2		60	3†	— 1	29	44	1.06		0.55	10.6	4	10	12	8	sw.
Grand Canyon (2).....	do.....	3,678	2	49.0		87	26	27	14	44	0.85		0.62	0.0	3	15	10	5	sw.
Greer.....	Apache.....	9,200																	
Holbrook.....	Navajo.....	5,069	18	43.5	+ 0.5	77	2	14	17	57	0.15	— 0.60	0.10	2.0	2	20	2	3	sw.
Intake.....	Gila.....	2,230	4																
Jerome.....	Yavapai.....	4,743	12	53.2	+ 1.5	79	2†	29	16	35	1.21	— 0.36	0.74	4.5	3	21	6	3	sw.
Keams Canyon.....	Navajo.....	4	41.4																
Kingman.....	Mohave.....	3,326		50.5		88	3	20	13	51	1.69		1.06	0.3	4	11	12	7	ne.
Maricopa.....	Pinal.....	1,180	29	50.4	+ 0.1	96	3	28	16	53	0.34		0.28	0.32	0	20	6	4	e.
Mess.....	Maricopa.....	1,244	14	59.0	— 0.1	96	2	32	15	53	0.34	— 0.48	0.34	0.0	1	17	12	1	sw.
Mohawk Summit.....	Yuma.....	533	9	64.8		93	1	40	28	38	0.14		0.14	0.0	1	18	12	0	e.
Natural Bridge.....	Gila.....	4,990	20																
Nogales.....	Santa Cruz.....	3,830	5	55.7		89	1†	27	15†	52	0.88		0.50	0.0	2	22	6	2	sw.
Oracle.....	Pinal.....	4,500	19	54.4	— 0.3	78	4†	30	17	40	0.66	— 0.63	0.42	0.0	2	22	6	2	sw.
Paradise.....	Cochise.....	3,940	2	49.5		82	5	18	17	51	0.35		0.35	0.0	1	18	6	6	sw.
Parker.....	Yuma.....	345	11																
Payson.....	Gila.....	5,500	1	47.8		85	2	17	13	57	1.45		1.00	3.5	2	14	7		

TABLE 1.—*Climatological data for November, 1909. District No. 9—Continued.*

Stations.	Counties.	Elevation, feet.	Length of record, yrs.	Temperature, in degrees Fahrenheit.						Precipitation, in inches.						Sky.	Prevailing wind direction.	Observers.			
				Mean.	Departure from the normal.		Highest.	Date.	Lowest.	Date.	Greatest daily range.	Total.	Departure from the normal.		Greatest in 24 hours.	Total snowfall unmeasured.	Number of rainy days, .01 inch or more.	Number of clear days.	Number of partly cloudy days.	Number of cloudy days.	
<i>Arizona—Cont'd.</i>																					
Thatcher	Graham.	2,800	11	52.8		86	4†	22	16	53	1.85			1.85	0.0	1	17	13	0	nw.	Prof. J. H. Larson.
Tombstone		4,550	14	55.5	+ 0.9	88	5	28	14	41	0.15	- 0.52	0.09	0.0	2	24	5	1		F. N. Walcott.	
Tuba	Coconino	4,500	9	41.9	- 2.6	72	5	15	16	46	0.30	- 0.40	0.13	3.0	4	13	8	9	ne.	G. H. Kraus.	
Tucson (1)	Pima	2,390	29	57.3	- 1.3	91	4	26	16	53	0.87	+ 0.08	0.43	0.0	3	3	24	3	3	nw.	University of Arizona.
Tucson (2)	do.	2,380	1	54.1		94	4	22	16	58	0.99		0.62	0.0	2	27	3	0		H. G. Brown.	
Upper San Pedro	Cochise	5,000																		B. T. Stuart.	
Vall	Pima	3,421	11	58.4	- 4.7	84	14†	27	19	50	0.07	- 0.76	0.07	0.0	1	12	0	18	se.	Agent, Southern Pac. Ry.	
Walnut Grove	Yavapai	3,649	19									1.02	- 0.51	0.62	5.5	3	14	12	4		J. O. Carter.
Wickenburg	Maricopa	2,072	2	50.2	+ 4.6	94	3	30	16	48	0.47	- 0.01	0.45	0.0	2	25	4	1	sw.	Agent, P. & P. R. R.	
Willcox	Cochise	4,184	29	50.5	- 1.8	84	2†	19	15†	54	0.22	- 0.25	0.12	0.0	2	18	0	12	s.	Agent, Southern Pac. Ry.	
Williams	Coconino	6,750	10	48.8		85	25	18	13†	48	0.81	- 0.82	0.51	8.2	3	18	2	10	ne.	H. Victor.	
Winslow	Navajo	4,853	1	45.0		80	7	15	17†	58	0.75		0.45	5.0	3	23	0	7		L. C. Henning.	
Yarnell	Yavapai	4,700	11									1.50	- 0.70	1.15	7.0	3	9	9	12	s.	E. L. Bartholomew.
Yuma (1)	Yuma	141	30	60.6	- 1.3	91	3	35	29	46	0.18	- 0.14	0.18	0.0	1	26	3	1	n.	U. S. Weather Bureau.	
Yuma (2)	do.	150	2	56.0		94	4	27	29	53	0.23		0.21	0.0	2	21	8	1	u.	E. L. Crane.	
<i>Nevada.</i>																					
Caliente	Lincoln																			Agent, Salt Lake Route.	
Las Vegas	Clark	2,033	2	49.4		83	3	25	17†	52	0.70		0.60	0.0	2	25	0	5		Roy M. Fischer.	
Logan	do.	1,700	3	50.9		85	3	25	16	46	1.04		0.38	0.0	5	10	15	5	n.		

* Precipitation included in that of the next measurement.

** Temperature extremes are from observed readings of the dry-bulb; means are computed from observed readings.

† Also on other dates.

‡ Data are from standard instruments not supplied by the U. S. Weather Bureau.

§ Instruments are read in the morning; the maximum temperature then read is charged to the preceding day, on which it almost always occurs.

|| Estimated by observer.

¶ Precipitation for the 24 hours ending on the morning when it is measured.

** Precipitation is less than 0.01 inch rain or melted snow.

*, †, ‡, etc., indicate, respectively, 1, 2, 3, etc., days missing from the record.

TABLE 2.—*Daily precipitation for November, 1909. District No. 9, Colorado Valley.*

Stations.	River basins.	Day of month.																													Total.		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<i>Wyoming.</i>																																	
Daniel.	Green.														T.	T.		30			T.	T.	50	T.	20	T.	T.	T.	T.	T.	T.	T.	1.00
Dixon.	do.																																0.42
Eden.	do.																																
Fontenelle.	do.																																
Green River.	do.																																
Kendall.	do.																																
Pinedale.	do.																																0.83
Willow Creek Cabin.	do.																																2.58
<i>Colorado.</i>																																	
Ashcroft.	Grand.																																1.71
Breckenridge.	do.																																0.71
Cascade.	San Juan.																																4.89
Chromo.	do.																																1.23
Cochetopa.	Gunnison.																																0.58
Colibri.	Grand.																																1.97
Columbine.	Yampa.																																2.24
Columbine Ranch.	Gunnison.																																2.38
Corona.	Grand.																																1.96
Crawford.	Gunnison.																																0.58
Crested Butte.	do.																																
De Beque.	Grand.																																
Delta.	Gunnison.																																1.01
Dillon.	Grand.																																0.84
Dolores.	Dolores.																																
Dunkley.	Yampa.																																
Durango.	San Juan.																																1.81
Eagle.	Grand.																																1.08
Eureka.	San Juan.																																2.29
Fruit.	Grand.																																0.92
Gladstone.	San Juan.																																3.00
Glenwood Springs.	Grand.																																1.26
Grand Junction.	do.																																1.05
Grand Lake.	do.																																1.20
Grand Valley.	do.																																1.84
Gunnison.	Gunnison.																																0.40
Hayden.	Yampa.																																1.72
Hesperus.	San Juan.																																
Horsefly.	do.																																
Ignacio.	San Juan.																																
Ironton.	Gunnison.																																2.62
Kremmling.	Grand.																																1.04
Lake City.	Gunnison.																																0.95
Lay.	Yampa.																																1.79
Lujane.	Gunnison.																																0.90
Mancos.	San Juan.																																1.53
Marble.	Grand.																																1.97
Marshall Pass.	Gunnison.																																1.77
Meeker.	White.																																2.53
Montrose.	Gunnison.																																0.73
Nast.	Grand.																																1.16
Pagoda.	Yampa.																																1.77
Pagosa Springs.	San Juan.																																1.66
Paonia.	Gunnison.																																1.05
Parshall.	Grand.																																1.92
Pitkin.	Gunnison.																																0.92
Rangely.	White.																																1.36
Redcliffe.	Grand.																																1.80
Rico.	Dolores.																																1.74
River Portal.	Gunnison.																																1.23
Sapinero.	do.																																1.90
Silt.	Grand.																																0.70
Silverton (1).	San Juan.																																3.22
Silverton (2).	Grand.																																2.46
Spruce Lodge.	do.																																1.12
Steamboat Springs.	Yampa.																																2.18
Tacoma.	San Juan.																																2.44
Terminal Dam.	do.				</																												

TABLE 2.—*Daily precipitation for November, 1909. District No. 9—Continued.*

TABLE 2—*Daily precipitation for November, 1909. District No. 9—Continued.*

TABLE 3.—*Maximum and minimum temperatures at selected stations, November, 1909. District No. 9, Colorado Valley.*

Date.	Wyoming.				Colorado.								Utah.								New Mexico.													
	Daniel.		Green River.		Durango.		Grand Junction.				Gunnison.		Meeker.				Steamboat Springs.				Emery.		Fort Duchesne.		Hite.		Moab.		St. George (Experimentsation).		Fort Bayard.		Fort Wingate.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
1.	47	23			59	19	56	29	45	32	57	16	59	9			52	19	67	34	60	24	70	25	66	35	69	29						
2.	48	22			65	27	64	31	44	30	64	21	64	16			61	20	69	33	67	26	74	26	74	41	69	26						
3.	63	27			66	30	65	31	50	28	58	22	72	19			65	20	69	33	67	25	75	27	70	40	70	28						
4.					68	29	64	28	48	29	65	25	60	17			63	20	71	32	68	25	74	26	75	41	71	30						
5.	57	12			64	26	65	36	49	25	65	20	67	13			62	19	71	34	68	26	73	30	75	40	65	33						
6.	53	13			66	28	66	29	52	18	65	17	72	15			64	18	73	34	73	27	72	26	71	37	66	25						
7.	46	10			60	28	62	30	60	7	55	16	64	14			57	24	69	34	65	26	69	24	72	45	64	31						
8.	50	16			62	27	60	32	54	8	62	18	62	12			57	22	67	33	67	27	70	25	68	45	63	28						
9.	45	17			58	30	63	33	45	6	60	26	57	15			53	30	75	45	68	60	57	31	65	40	62	37						
10.	41	20			49	26	52	38	38	9	58	28	57	22			50	34	59	46	63	39	56	37	64	33	59	39						
11.	40	12			41	19	47	31	36	12	40	14	41	12			44	16	57	33	54	28	53	30	61	32	46	19						
12.	34	5			39	20	41	31	38	14	35	18	40	11			44	22	57	35	47	32	57	29	54	31	45	23						
13.	27	2			34	13	40	30	41	18	39	17					46	21	53	32	50	30	46	26	52	25	41	15						
14.	23	10			31	28	48	32	37	19	39	16	38	12			40	29	52	31	50	28	46	31	56	22	46	28						
15.	30	2			36	12	37	25	33	21			38	18			40	29	51	34	30	31	49	31	50	22	45	23						
16.	30	10			38	5	36	20	31	2	32	11	38	5			35	12	51	23	39	19	48	26	55	23	47	12						
17.	35	4			46	12	40	20	30	3	30	10	41	7			36	11	49	25	39	25	53	23	60	24	56	14						
18.	42	6			50	19	45	21	36	2	42	0	40	3			46	10	52	26	44	20	58	24	65	25	60	19						
19.	39	26			51	21	43	21	42	2	48	7	45	3			41	12	56	27	47	21	54	25	66	38	61	21						
20.	40	30			57	24	50	28	49	16	52	39	46	29			58	27	71	33	58	28	60	28	65	36	64	35						
21.	37	25			39	31	51	31	40	22	48	34	52	32			58	27	67	47	58	32	57	27	64	34	44	34						
22.	39	29			48	24	52	27	44	24	45	29	45	27			60	28	67	31	60	29	63	30	74	33	64	27						
23.	40	32			58	27	58	32	46	23	46	29	46	33			65	29	70	33	62	32	64	29	74	40	63	25						
24.	37	31			60	27	60	30	42	19	47	32	52	31			58	28	69	31	62	31	66	29	73	38	67	30						
25.	38	32			62	32	56	29	43	17	58	24	53	20			51	23	72	34	66	32	62	34	74	34	65	40						
26.	35	26			47	37	64	40	50	15	55	39	50	27			62	35	69	44	66	41	54	36		28	60	38						
27.	36	18			41	32	54	33	35	6		41	16				41	29	62	37	57	39	45	34		20	48	28						
28.	41	7			36	20	38	30	32	10	29	7	33	1			32	7	50	37	57	29	52	27		19	37	20						
29.	45	15			34	24	39	29	33	16	33	7	41	7			32	10	48	36	43	30	33	24	48	25	37	24						
30.	41	17			34	18	40	30	34	18	32	5	37	11			35	20	44	34	41	32	27	50	32	35	22							
31.																																		
Mins	41.3	16.7			49.9	23.8	52.0	29.6	41.9	15.2	48.9 ^c	18.9 ^c	50.0	14.8			49.9	21.7	61.9	34.1	56.4	29.8	59.0	28.2	64.1 ^d	32.6	56.3	26.8						

Ағілода.